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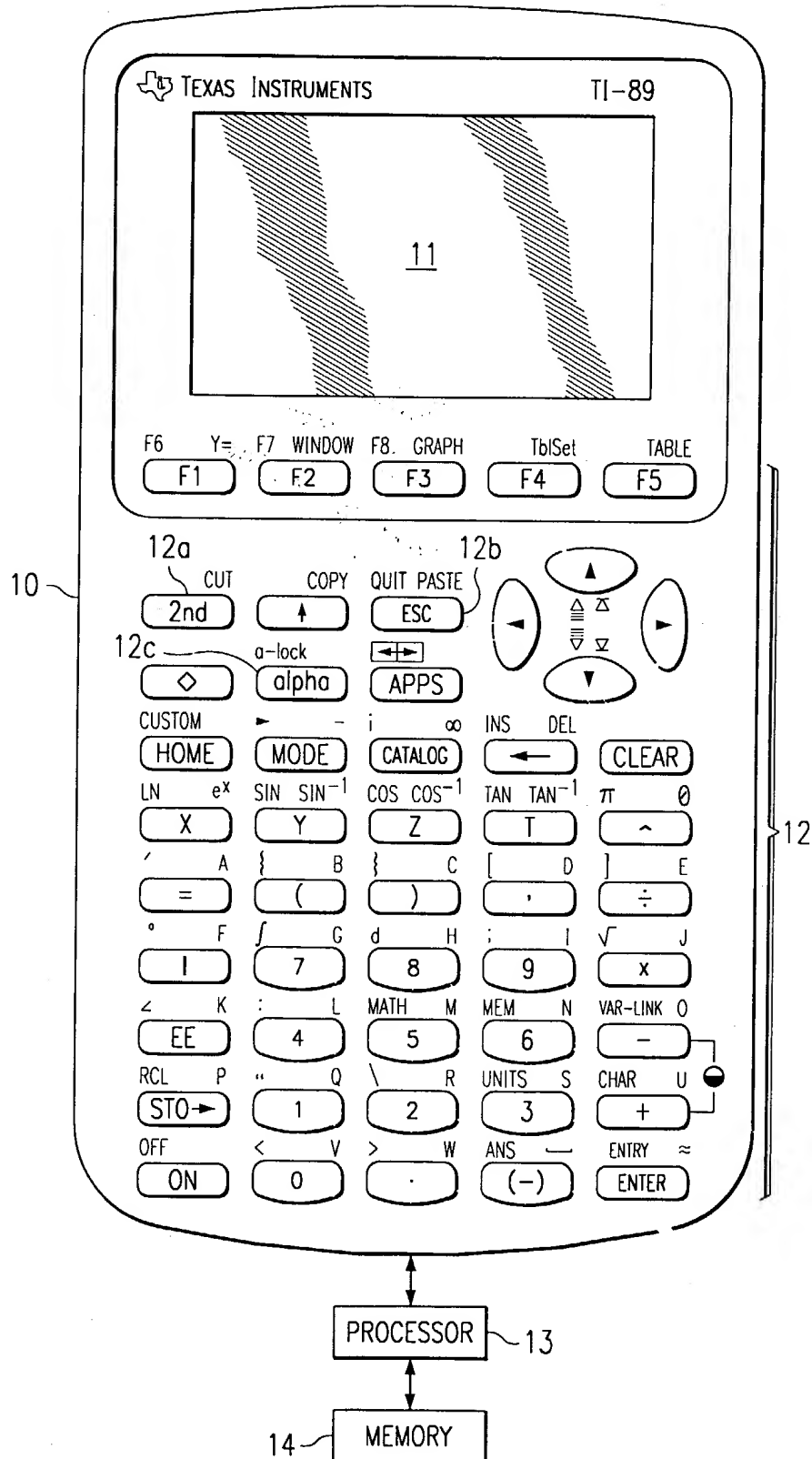
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FIG. 1
(PRIOR ART)



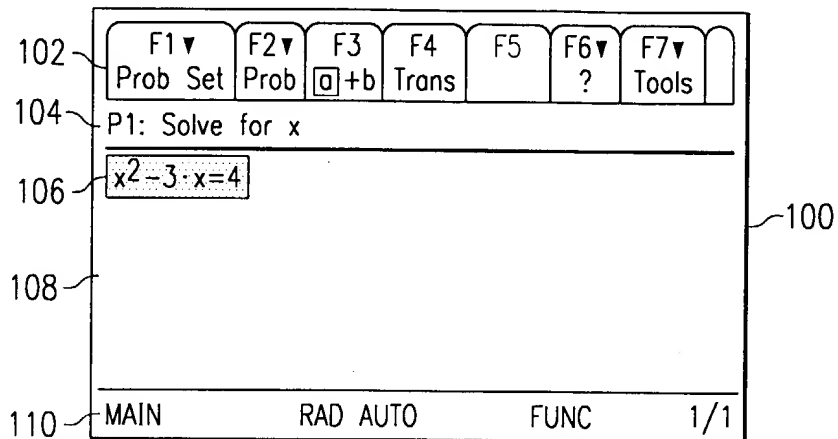
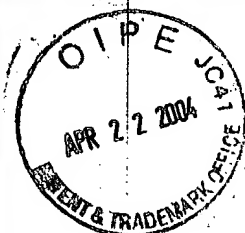


FIG. 2a

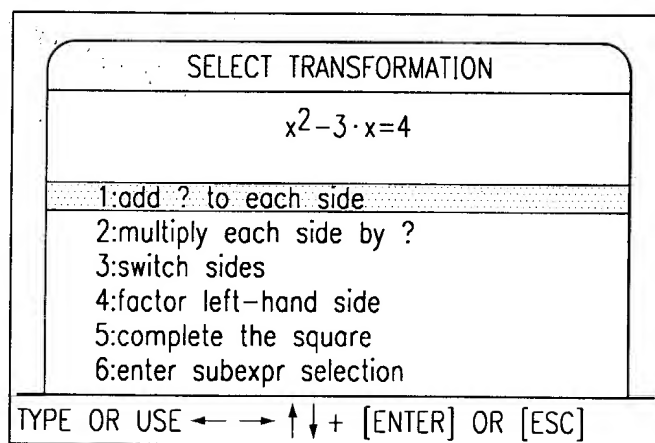


FIG. 2b

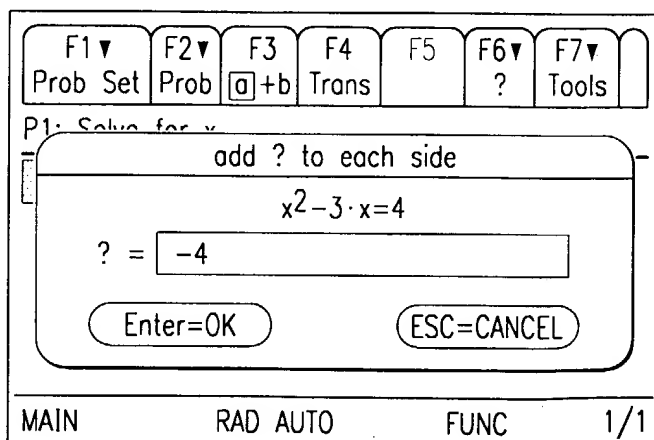


FIG. 2c



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F1▼ Prob Set	F2▼ Prob	F3 [a]+b	F4 Trans	F5	F6▼ ?	F7▼ Tools	
P1: Solve for x							
$x^2 - 3 \cdot x = 4$							
► add -4 to each side							
Press <ENTER>							
MAIN		RAD AUTO		FUNC		PAUSE	

FIG. 2d

F1▼ Prob Set	F2▼ Prob	F3 [a]+b	F4 Trans	F5	F6▼ ?	F7▼ Tools	
P1: Solve for x							
$x^2 - 3 \cdot x = 4$							
► add -4 to each side							
$x^2 - 3 \cdot x + -4 = 4 + -4$							
MAIN		RAD AUTO		FUNC		1/1	

FIG. 2e

F1▼ Prob Set	F2▼ Prob	F3 [a]+b	F4 Trans	F5	F6▼ ?	F7▼ Tools	
P1: Solve for x							
$x^2 - 3 \cdot x = 4$							
► add -4 to each side							
$x^2 - 3 \cdot x + -4 = 4 + -4$							
► simplify							
Press <ENTER>							
MAIN		RAD AUTO		FUNC		PAUSE	

FIG. 2f



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F1▼ Prob Set	F2▼ Prob	F3 [a]+b	F4 Trans	F5	F6▼ ?	F7▼ Tools
P1: Solve for x						
$x^2-3\cdot x=4$						
► add -4 to each side						
$x^2-3\cdot x+^{-}4=4+^{-}4$						
► simplify						
$x^2-3\cdot x-4=0$						
MAIN		RAD AUTO		FUNC		1/1

FIG. 2g

SELECT TRANSFORMATION	
$x^2-3\cdot x-4=0$	
1:add ? to each side	
2:multiply each side by ?	
3:switch sides	
4:factor left-hand side	
5:quadratic formula	
6:enter subexpr selection	
MAIN	RAD AUTO FUNC 1/1

FIG. 2h

F1▼ Prob Set	F2▼ Prob	F3 [a]+b	F4 Trans	F5	F6▼ ?	F7▼ Tools
P1: Solve for x						
$x^2-3\cdot x+^{-}4=4+^{-}4$						
► simplify						
$x^2-3\cdot x-4=0$						
► factor left-hand side						
$(x-4)\cdot (x+1)=0$						
MAIN		RAD AUTO		FUNC		1/1

FIG. 2i



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SELECT TRANSFORMATION			
$(x-4) \cdot (x+1)=0$			
1:add ? to each side			
2:multiply each side by ?			
3:switch sides			
4: $A \cdot B=0 \rightarrow A=0$ or $B=0$			
5:distribute multiplication			
6: $(A \pm B) \cdot C \rightarrow A \cdot C \pm B \cdot C$			
7: $A \cdot (B \pm C) \rightarrow A \cdot B \pm A \cdot C$			
MAIN	RAD AUTO	FUNC	1/1

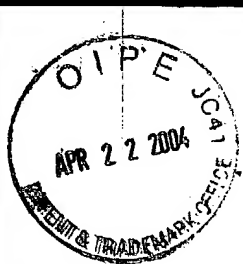
FIG. 2j

F1▼ Prob Set	F2▼ Prob	F3 $\boxed{a}+b$	F4 Trans	F5	F6▼ ?	F7▼ Tools
P1: Solve for x						
$x^2-3 \cdot x-4=0$						
► factor left-hand side						
$(x-4) \cdot (x+1)=0$						
► $A \cdot B=0 \rightarrow A=0$ or $B=0$						
$\boxed{x-4=0}$ or $\boxed{x+1=0}$						
MAIN	RAD AUTO	FUNC	1/1			

FIG. 2k

SELECT TRANSFORMATION	
$x-4=0$ or $x+1=0$	
1:solve linear equation	
2:enter subexpr selection	
TYPE OR USE ← → ↑ ↓ + [ENTER] OR [ESC]	

FIG. 2l



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F1▼ Prob Set	F2▼ Prob	F3 [a]+b	F4 Trans	F5	F6▼ ?	F7▼ Tools
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P1: Solve for x

$(x-4) \cdot (x+1) = 0$

► $A \cdot B = 0 \rightarrow A=0$ or $B=0$

$x-4=0$ or $x+1=0$

► solve linear equation

$x=4$ or $x=-1$

MAIN	RAD AUTO	FUNC	1/1
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FIG. 2m

F1▼ Prob Set	F2▼ Prob	F3 [a]+b	F4 Trans	F5	F6▼ ?	F7▼ Tools
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P1: Solve for x

$x^2 - 3 \cdot x - 4 = 0$

► quadratic formula

$$x = \frac{-(-3) \pm \sqrt{(-3)^2 - 4 \cdot 1 \cdot -4}}{2 \cdot 1} \text{ or } \blacktriangleright$$

MAIN	RAD AUTO	FUNC	1/1
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FIG. 2n

F1▼ Prob Set	F2▼ Prob	F3 [a]+b	F4 Trans	F5	F6▼ ?	F7▼ Tools
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P1: Solve for x

► quadratic formula

$$x = \frac{-(-3) \pm \sqrt{(-3)^2 - 4 \cdot 1 \cdot -4}}{2 \cdot 1} \text{ or } \blacktriangleright$$

► simplify

$x=4$ or $x=-1$

MAIN	RAD AUTO	FUNC	1/1
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FIG. 2o



F1▼ F2▼ F3 F4 F5 F6▼ F7▼
Prob Set Prob **a+b** Trans ? Tools

P3: Solve for x

$x^2 - 3 \cdot x = 4$
► add -4 to each side
 $x^2 - 3 \cdot x + -4 = 4 + -4$
► simplify

114 $x^2 - 3 \cdot x - 4 = 0$

116 Use ←, →, ↓, ↑, Shift ←, Shift →, ESC, F3, F4, F7

FIG. 3a

FIG. 3b

SELECT TRANSFORMATION

$x^2 - 3 \cdot x - 4$

1:factor
2:A-B → A+⁻B
3:exit subexpr selection
4:rewrite as ?

TYPE OR USE ← → ↑ ↓ + [ENTER] OR [ESC]

F1▼ F2▼ F3 F4 F5 F6▼ F7▼
Prob Set Prob **a+b** Trans ? Tools

P3: Solve for x

$x^2 - 3 \cdot x = 4$
► add -4 to each side
 $x^2 - 3 \cdot x + -4 = 4 + -4$
► simplify

x^2 $-3 \cdot x$ $-4 = 0$

MAIN RAD AUTO FUNC 3/3

FIG. 3c

FIG. 3d

SELECT TRANSFORMATION

$-3 \cdot x$

1:arithmetic
2:(-A) · B → -(A · B)
3:arith, -, 0 & 1 ident
4:A · B → B · A
5:exit subexpr selection
6:rewrite as ?

TYPE OR USE ← → ↑ ↓ + [ENTER] OR [ESC]